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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/880,204 | 06/12/2001 | Michael D. Camras | M-8633-1P US | 6136 |

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EXAMINER

FORDE, REMMON R

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2826

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,204

Applicant(s)

CAMRAS ET AL.

Examiner

Remmon R. Fordé

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 20 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-44, 51-54, 63 and 64 is/are pending in the application.
- 4a) Of the above claim(s) 4-7, 12-15, 21-30, 38-44 and 51-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3, 8-11, 16-20, 31-37, 63 and 64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8, 12, 13 6) ☐ Other: _____

DETAILED ACTION

Response To Election Of Species

Applicant's election of species namely Figure 1D/Embodiment 3 (claims 1-3, 8-11, 16-20, 31-37, and new claims 63 and 64) in Paper No. 11 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Goossen.

Regarding claim 1, referencing Figures 2a-2c and 4, Goossen discloses a light emitting device (2) (i.e. photoemitter) having a stack of layers (24,26,28) including semiconductor layers comprising an active region (26), the device further provided with a transparent optical element (non-imaging optical director, (NID)) bonded to the stack. (Column 2, line 23 – Column 3, line 40.)

Regarding claims 2 and 8, referencing Figures 2a-2c and 4, Goossen further discloses that the optical element (NID) is an optical concentrator. (Column 2, line 23 – Column 3, line 40.)

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Regarding claim 9, referencing Figures 2a-2c and 4, Goossen further discloses that the optical element (NID) is formed from an III-V semiconductor material (i.e. AlGaAs.) (Column 2, lines 36-40.)

Claims 1, 2, 11 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Seki et al..

Regarding claims 1 and 2, referencing Figure 1, Seki et al. discloses a laser chip tack device (10 and 20) having a stack of layers (11-15 and 21-25) comprising active layers (13 and 25), wherein the device is further provided with a convex lens (36) bonded to the stack of layers for converging a laser beam emitted from the partially light transmissible reflecting surface. (Column 3, line 14 – Column 4, line 21.)

Regarding claims 11 and 16-18, referencing Figure 1, Seki et al. further discloses that the convex lens (36) includes material that converts light of a wavelength emitted by the active regions to at least another wavelength. (Column 3, line 14 – Column 4, line 21.)

Regarding claim 19, referencing Figure 1, Seki et al. further discloses contacts (32 and 33) electrically coupled to the semiconductor layers to apply a voltage across the active regions. (Column 3, line 14 – Column 4, line 21.)

Regarding claim 20, referencing Figure 1, Seki et al. further discloses that contacts (32 and 33) is highly reflective for light emitted by the active regions and is

located to reflect the light toward the convex lens. (Column 3, line 14 – Column 4, line 21.)

Claims 1, 31 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Plaster.

Regarding claim 1, referencing Figures 2A-2D, Plaster discloses a LED having a stack of layers (200, 201, 203, 206, 208, 209) including semiconductor layers comprising an active region (206) and a transparent optical element (212) (i.e. microlens) bonded to the stack. (Column 3, line 25 – Column 5, line 7.)

Regarding claim 31, referencing Figures 2A-2D, Plaster further discloses providing a transparent bonding layer disposed between the microlens and a surface of the stack, the transparent bonding layer bonding the microlens to the stack. (Column 3, line 25 – Column 5, line 7.)

Regarding claim 37, referencing Figures 2A-2D, Plaster further discloses that the surface includes a surface of one of the semiconductor layers (i.e. the microlens is bonded to the surface of layer (208)). (Column 3, line 25 – Column 5, line 7.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goossen.

Regarding claims 3 and 10, Goossen teaches all the claimed invention except for the exact parabolic shape or the exact material composition of the optical concentrator. Although Goossen does not teach the exact shape or material composition of the optical concentrator as that claimed by Applicant, the shape, size, dimension and compositional differences are considered obvious design choices and are not patentable unless unobvious or unexpected results are obtained from these changes. It appears that these changes produce no functional differences and therefore would have been obvious. Note *In re Leshin*, 125 USPQ 416.

Claims 32-36, 63 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plaster.

Regarding claims 32-36, 63 and 64 Plaster teaches all the claimed invention except for the exact material composition or the exact thickness of the transparent bonding layer. Although Plaster does not teach the exact material composition or the exact thickness of the transparent bonding layer as that claimed by Applicant, the shape, size, dimension and compositional differences are considered obvious design choices and are not patentable unless unobvious or unexpected results are obtained

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from these changes. It appears that these changes produce no functional differences and therefore would have been obvious. Note *In re Leshin*, 125 USPQ 416.

Relevant Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Clark, Shveykin and Ruh each disclose light-emitting devices.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Remmon R. Fordé whose telephone number is (703) 305-4533. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-5841 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Remmon R. Fordé
August 8, 2002

NATHAN J. FLYNN
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